Commissioner Karmenu VELLA
Environment, Maritime Affairs and Fisheries

Head of Cabinet meeting with Ms Lisa Jackson,

Vice-President of Environmental Initiatives, Apple

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Member of Cabinet responsible: Aurore Maillet
Member accompanying: Aurore Maillet
DG participants: [redacted] and/or
[redacted] ENV.A1

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TABLE OF CONTENTS

1) INTRODUCTION

SCENE SETTER

Apple has implemented relatively advanced environmental policy, and is particularly forward-looking as regards climate change (important message in the US market). The company recognises that making as many products as they do has a significant impact on the environment. They are aware of their carbon footprint and working to address it through a number of initiatives such as using energy and materials more efficiently in their facilities, getting energy from cleaner sources, and designing some of the world's most energy-efficient electronic products. Apple estimates that even though they are manufacturing and shipping more products than ever, their carbon emissions per product have been dropping since 2011. In addition, Apple took action on removing harmful substances from their products and supporting forest and nature conservation. On Circular Economy, they cooperate with the Ellen MacArthur Foundation.

However, Apple has been criticised for practices equivalent to planned obsolescence, such as altering connectors for charging, not supporting drivers for old printers or not ensuring compatibility with older versions of recording software, making it difficult to replace a battery or repair a screen (see Background). This reduces the gains realised on carbon emissions per product and could be questioned in the perspective of circular economy.

Commissioner declined the meeting but will attend dinner with lisa Jackson and the US ambassador the same evening.

OBJECTIVES

- Clarify the Commission's thinking on Circular Economy and ongoing and planned initiatives related to electrical and electronic equipment.
- Find out about Apple's efforts in reducing environmental impacts of their products and production processes, with focus on Circular Economy (durability, reparability of their products) and asking about plans to avoid planned obsolescence.

2) SPEAKING POINTS

- Welcome efforts by Apple, one of the biggest market players in electronics, to minimise its impact on the environment.

- Recognise that the measures taken address a wide spectrum of environmental impacts, ranging from climate change mitigation, through cleaning material chains via elimination of hazardous substances from Apple's products, to supporting nature conservation and sustainable forestry - such a comprehensive approach is progressive and well in line with the policies of the EU.

- Early in 2015, the European Commission announced that it will adopt, by the end of this year, a comprehensive and ambitious strategy for promoting the transition to a more circular economy. Preparatory work on this strategy is in full swing, and a public consultation closed on 20 August.

- The package will contain an important number of proposals regarding the "other half of the circle", including measures aimed at increasing product reparability and longevity through the EU product and consumer policies. A new waste proposal will also be a part of the package. This revised proposal will maintain a high level of ambition, while paying due attention to current differences between Member States.

- Through this initiative, we want to ensure that valuable resources are not lost, but are re-introduced back into the economy for as long as possible. This is important for environmental but also economic reasons.

- On planned obsolescence where there is a significant margin for improvement in the sector of electronic goods, for example, to ensure the compatibility of new materials with

older software, printers or chargers, even in a rapidly changing/ fast innovating sector.

- I hear also criticisms of Apple about the regular marketing of new products and updates of software which has the effect of making older versions of devices such as printers, chargers or software like recorders quickly obsolete, even when they could technically have a longer lifetime. I would encourage Apple, and indeed the whole electronic goods industry to have a closer look at this as it is in fact equivalent to planned obsolescence. Apple's environmental agenda looks promising and should facilitate the evolution needed on circular economy including on the question of planned obsolescence. Manufacturers' contributions to guarantee the efficiency, reparability and longevity of electronic devices are a matter of meeting both consumer and environmental interests.

- The Commission is also implementing other policies relevant for Apple, particularly the Restriction of Hazardous Substances in electric and electronic equipment Directive (RoHS); this includes the progressive adaptation of the technical part of RoHS to technological advancement (e.g. through exemptions from restriction, through new restricted substances).

3) DEFENSIVE POINTS

EU legislation and policy should facilitate non-toxic material cycles and high-level recycling, and discourage sham recycling. Waste containing hazardous substances should merely be steered to safe final disposal or destruction. Companies should make efforts to eliminate such substances from their products.

- The Commission can only agree with this statement. All efforts should be made to ensure high quality recycling and this is why separate collection at source should be strongly encouraged. Removing harmful substances from products is essential to increase recycling rates. However, while the general assumption is that hazardous waste cannot be recycled, in fact it can and should be recycled if risks to human health and environment are prevented. There are some categories of hazardous waste, such as lubricants, for which recycling rates are quite high already today.
- As concerns the treatment of Waste Electronic and Electrical Equipment (WEEE), binding requirements are set out in Annex VII to Directive 2012/19/EU on waste electrical and electronic equipment. Furthermore, the Commission has asked the European Committee for Electrotechnical Standardisation (CENELEC) to develop European Standards for the treatment including recovery, recycling and repairing for re-use of WEEE, reflecting state-of-the-art technology.
- RoHS (2011/65/EU) is the revision of the directive in place since 2002. This prevention legislation applies to electric and electronic devices (EEE) in order to facilitate their recycling and to bring a step-by-step reduction of hazardous substances in EEE. The Commission is continuously adapting RoHS to scientific and technical progress, and following its implementation.

Initiatives to promote recycling of critical raw materials: volume-based recycling targets do not sufficiently take into account the need for enhanced recycling of low-volume but scarce and valuable materials. There is a need to create new innovative systemic and technological solutions to accelerate recycling.

- The Commission appreciates the need to promote recycling of critical raw materials. We are currently considering possible measures to prioritise this specific area as part of the Action Plan on Circular Economy. Questions regarding critical raw materials were included in the recent public consultation questionnaire which is now closed. We are currently analysing the responses.
- The Commission is also looking at this particular area as part of other initiatives, including the Raw Materials Initiative.
- The new WEEE Directive 2012/19/EU introduced higher collection targets for waste electrical and electronic equipment which will ensure that around 10 million tons, or roughly 20kg per capita, will be separately collected from 2019 onwards (A collection target of 45% of electronic equipment sold will apply from 2016 and, as a second step from 2019, the target will be 65% of equipment sold, or 85% of WEEE generated).

Excessive reporting requirements or other administrative burden should be avoided both for the economic operators and the administration.

- Minimisation of administrative burden is amongst the priorities of this Commission. In the upcoming waste proposal we will aim at reducing reporting requirements quite significantly by limiting them to data reporting only - a requirement which exists already today. It is however crucial that data reported to the Commission is of good quality and can be used to check compliance with the targets. Here we do not want to take any shortcuts.

- Furthermore, specifically for producers of electrical and electronic equipment the Directive 2012/19/EU on WEEE already provides for the reduction of administrative burden through harmonisation of national registration and reporting requirements. Among other things, requirements for Member States' registers for producers will be aligned more closely. The Commission is working on the harmonisation of national registration and reporting requirements by 2016.

What are the business opportunities that arise from a more Circular Economy?

- We will propose a new Circular Economy initiative that boosts recycling and resource efficiency. It will foster new markets for secondary raw materials. This should create new business opportunities for eco-industries. Circular Economy will also enable proper recovery of more valuable materials, including so-called critical raw materials which European business rely on and which have to be imported from regions of the world which are often politically unstable. This will ensure a more stable and reliable supply of materials essential for the EU industry.

What level of growth, job creation and environmental impact can the Circular Economy bring to Europe?

- Recent estimates show how increasing resource productivity by 30% by 2030 could boost GDP by nearly 1%, while creating over two million jobs more than a "business as usual" scenario. Waste prevention, eco-design, re-use and similar measures could bring net savings of €600bn or 8% of annual turnover for businesses in the EU while reducing total annual greenhouse gases by 2-4%.

At the beginning of 2015 the publication of a new work programme under Ecodesign for the period 2015-17 was expected. It has not come forward yet. Can you tell when it will come out and what will be the focus of it?

- Ecodesign is an important element of the work on circular economy. The aim for the work programme will be to identify the product groups most suitable for establishing or reviewing implementing measures and to set out how Ecodesign can contribute to a Circular Economy. This of course will remain closely linked to the overall work and timing on circular economy.

The Ecodesign Directive has limited consumer choice in a range of product groups (light bulbs, vacuum cleaners, stand-by mode of electronic devices, etc.) and has thus been considered by some as an intrusive instrument.

- It is estimated that the current Ecodesign and Energy labelling legislative framework will deliver nearly half of the energy savings required to reach the 20% energy savings target for 2020 by saving 175 Mtoe (tonne oil equivalent) in primary energy in 2020 – more than the current annual primary energy consumption of Italy. For example, Ecodesign measures have regulated the maximum energy used by electronic devices in stand-by mode without encountering major criticism from the industry. In addition, the European Council set an indicative EU target of at least 27% for improving energy efficiency in 2030. This will be reviewed by 2020, with a view to increasing this level to 30%. Moderation of demand is one of the key dimensions of the Energy Union framework strategy, which sets out that the Commission will review the energy efficiency framework for products in 2015.

- Despite its success, Ecodesign measures have been attacked at times in the public discourse in some Member States as well as during the EP 2014 election campaign. The EU has been depicted as overreaching, especially when it banned certain widely-used consumer products from the market by way of setting strict Ecodesign standards (e.g. incandescent light bulbs, high-powered vacuum cleaners, coffee machines without an automatic switch-off function). However, all product-specific implementing measures are based on an impact assessment and a broad stakeholder consultation, which ensures that consumers and product function are not affected by the measures and that significant monetary savings are reaped by consumers. Overall, consumers could be saving €465 annually per household by 2020 (DG ENER estimates). There is also an obvious interest for industry to have such measures taken at EU level for national measures would risk conflicting with the single market, considering that only few products are produced and sold in one Member State only.

4) BACKGROUND INFORMATION

Circular Economy – state of play

The Circular Economy package is expected to be adopted in December 2015. It will consist of a Communication setting out actions for the Commission stimulating transition into a more circular economy and a proposal for a new legislation on waste.

The Commission held a stakeholder conference on 25 June with some 800 participants and a public consultation in July and August received 1473 contributions. Additional contributions are expected from Member States by 10 September. For the legislative proposal on waste, additional information was gathered and will be summarised in a supplement to the impact assessment.

What is Circular Economy?

We all rely on natural resources, such as land, air, water, metal ores, minerals or wood, to live and thrive. Natural resources are derived from the environment. Some of them are essential for our survival while most are used for satisfying our desires. However, natural resources are limited and we are currently not using them in a sustainable way. Fast growing population of consumers globally and the increased per capita consumption of an expanding middle class are challenging the very essence of our consumerism society.

By 2050, the world population may reach 9 to 11 billion, and middle income earners globally will have grown from 1.8 billion in 2009 to 4.9 billion already by 2030, with consumption rising sharply. Following this trend, global extraction of resources is expected to increase by 75% in 25 years. Global demand for food, feed and fibre will increase by 70% by 2050, while 60% of the ecosystems underpinning their supply are already degraded or used unsustainably. On top of that, to keep the global temperature increase below 2ºC, CO2 emissions between now and 2050 must be kept limited to a maximum of 1000 billion tonnes. This would compel us to leave most of known oil, gas, and coal reserves in the ground. Together, they account for 2900 billion tonnes of CO2 equivalent.

Pressures on resources and environmental concerns are one of the four key long-term trends affecting growth. In a world where demand and competition for finite and often scarce resources will continue to increase, and pressure on resources is causing greater environmental degradation and fragility, we could all benefit economically and environmentally from making better use of those resources.

The Circular Economy concept offers a solution to this challenge. It is seen as an alternative to the prevalent linear economic model, developed since the industrial revolution, which is based on the "take-make-consume-discard" consumption pattern. It has become clear that we cannot afford to live like that for much longer: we will run out of resources and irreversibly pollute the environment.

The recently-adopted Sustainable Development Goals, set to be endorsed by the UN summit in New York in September and intended to be met globally by 2030, recognise the need for change by calling on the world's nations to ensure sustainable consumption and production patterns. They include, for example, sustainable management and efficient use of natural resources, halving per capita global food waste, sound management of chemicals and wastes, substantially reducing waste generation through prevention, reduction, recycling and re-use, more sustainable practices at the level of businesses, building people's awareness of sustainable development and lifestyles in harmony with nature.

RoHS

RoHS is a prevention directive for the sector of manufacturing and importing electric and electronic equipment (EEE): a restriction applies to EEE placed on the Union market, which cannot contain the substances listed in RoHS Annex I. Recently (June 2015), additional substances, four phthalates, have been added to this list, which also includes four heavy metals and two plasticisers. RoHS operates independently, but in synergy with REACH.

The adaptation of RoHS is carried out by the Commission through the adoption of delegated acts by always consulting all relevant stakeholders, both in the case of adding new restricted substances and in the case of granting exemptions from the restriction to specific applications. As regards exemptions, several renewal requests of exemptions have been filed by applicants during 2015. Some of these requests (e.g. 7(c)-I, 7(c)-II) have been filed also by Digital Europe, umbrella organisation that Apple is part of. The assessment process of these requests is currently ongoing, with the finalisation expected for the end of 2016. The finalisation could result in the granting of a renewal for an additional 5 years period or in a rejection of the renewal request, depending on whether the conditions for exemption are met.

Waste of electrical and electronic equipment (WEEE)

WEEE such as computers, TV-sets, fridges and cell phones is one the fastest growing waste streams in the EU with some 9 million tonnes generated in 2005, and is expected to grow to more than 12 million tonnes by 2020.

WEEE is a complex mixture of materials and components which, because of their hazardous content, and if not properly managed, can cause major environmental and health problems. Moreover, the production of modern electronics requires the use of scarce and expensive resources (e.g. around 10% of total gold worldwide is used for their production). To improve the environmental management of WEEE and to contribute to a circular economy and enhance resource efficiency the improvement of collection, treatment and recycling of electronics at the end of their life is essential.

To address these problems the WEEE Directive has been put in place.

The first WEEE Directive (Directive 2002/96/EC) entered into force in February 2003. The Directive provided for the creation of collection schemes where consumers return their WEEE free of charge.

The new revised WEEE Directive 2012/19/EU entered into force on 13 August 2012 and became effective on 14 February 2014 (deadline for the transposition of the Directive into the legislation of the Member States).

It introduces a collection target of 45% of electronic equipment sold that will apply from 2016 and, as a second step from 2019, a target of 65% of equipment sold or 85% of WEEE generated. Member States will be able to choose which one of these two equivalent ways to measure the target they wish to report. The new collection targets, being stated as a percentage, reflect the amount of waste arising in each Member State, placing the Member States on a level playing field as regards resource efficiency. For some Member States, this implies a doubling or tripling of the current collection rates. The new collection targets agreed will ensure that around 10 million tons, or roughly 20kg per capita, will be separately collected from 2019 onwards.

A further improvement is the harmonisation of national registration and reporting requirements under the Directive. Member States' registers for producers of electrical and electronic equipment will now have to be integrated more closely. The Commission will adopt a harmonised format to be used for the supply of information. Administrative burdens are consequently expected to decrease significantly. The Commission is currently working on this task.

phones from their chargers, with only 0.02% of EU handset shipments from 2011 to 2013 being supplied without a mains charger. In this regard, the effectiveness of the MoU could have been enhanced by measures to encourage increased decoupling. Thus, if Apple used micro-USB interface on their phones/tablets like their main competitors and did not use the option of fulfilling the agreement with a cable that qualifies as an adaptor, consumers would not have to buy special adaptors to make a non-Apple charger compatible with their devices and Apple could stop supplying chargers with new products. This would result in extremely important resource savings and consumer convenience.

Apple and planned obsolescence

Apple has been criticised for its practices equivalent to planned obsolescence by specialist bloggers and journalists such as Catherine Rampell in the *New York Times (Cracking the Apple Trap,* Oct. 29, 2013).

The new WEEE Directive will also give EU Member States the tools to fight illegal export of waste more effectively, *inter alia*, by obliging exporters to test and provide documents on the nature of their shipments when the shipments run the risk of being waste.

The Batteries Directive and APPLE

First generation Apple i-Pod devices did not allow for the removing and changing of their batteries even when the life of the latter ended nor was recharging them possible. The life of the device was then fully contingent upon the lifespan of their batteries.

To avoid such situations the EU Directive on Batteries (2006/66/EC) incorporates provisions requiring Member States to ensure that manufacturers design appliances in such a way that waste batteries and accumulators can be readily removed by end-users or specialised professionals.

Apple devices placed on the market in the EU now meet such provisions, allowing the replacement to be done by professionals. However it is almost impossible for end-users to do it. Consumers' associations criticise Apple for this behaviour.

The Directive also encourages Member States and the industry to develop more efficient devices and long-lasting batteries and, like the rest of the industry, Apple is promoting the development of both aspects. However, the 'short' duration of battery-life compared to the appliance still draws criticisms by end-users.

Common chargers for mobile phones

In the past, mobile phones were only compatible with specific chargers. Apart from causing inconvenience to the consumer, this created unnecessary electronic waste. In response to this, the European Commission facilitated an agreement among major manufacturers to adopt a common charger for data-enabled (smart) mobile phones sold in the EU. In June 2009, a Memorandum of Understanding (MoU) was signed in which mobile phone manufacturers agreed to harmonise chargers for new models of data-enabled handsets coming onto the market as of 2011. The MoU expired at the end of 2012 but it has been effectively extended by a number of its signatories through two subsequent 'Letters of Intent' (LoI), signed in 2013 and 2014. Apple is a signatory of both the MoU and the LoI.

The common charging capability requires a Micro-USB connector, but explicitly allows for other types of connectors provided that the respective manufacturer makes an adaptor available. An adaptor can also be a detachable cable and Apple uses this option in the applicable standard to comply with the MoU and they have implemented their proprietary charging interfaces on subsequent iPhone and iPad models. This means that consumers cannot use other smart phone manufacturers' micro-USB chargers without an adaptor for their iPhones and the chargers of iPhone 4s and 5s are also different.

This situation clearly results in missed environmental savings and consumer inconvenience, since such adaptors would have to be purchased individually. DigitalEurope (Apple is a member) claims that as "data volumes increase it is important to increase speed of data transfer and to allow faster charging of higher capacity batteries (needed to power tomorrow's smartphones). Therefore connectors are regularly improved to meet these new market requirements. Not following these trends would lead to a technological standstill and result in a disadvantage for the consumers."

DG GROW carried out a study in 2014 (http://ec.europa.eu/growth/sectors/electrical-engineering/rtte-directive/common-charger/index_en.htm) that evaluated the impacts the initiative has had on the harmonisation of chargers for mobile phones and indirectly on the markets for other portable electronic devices, and assessed the potential for further harmonisation. It concluded that the voluntary approach has been effective in reducing the number of chargers used by manufacturers. However, anticipated savings in raw material consumption do not appear to have materialised due to very limited "decoupling" of mobile

5) ANNEX

CV OF LISA JACKSON

Lisa Jackson is Apple's vice president of Environment, Policy and Social Initiatives, reporting to CEO Tim Cook.

Lisa oversees Apple's efforts to minimize its impact on the environment by addressing climate change through renewable energy and energy efficiency, using greener materials, and inventing new ways to conserve precious resources. She is also responsible for Apple's education policy programs such as ConnectED, its product accessibility work, and its worldwide government affairs function.

From 2009 to 2013, Lisa served as Administrator of the U.S. Environmental Protection Agency. Appointed by President Barack Obama, she focused on reducing greenhouse gases, protecting air and water quality, preventing exposure to toxic contamination, and expanding outreach to communities on environmental issues. She has also served as Chief of Staff to New Jersey Governor Jon S. Corzine and as Commissioner of New Jersey's Department of Environmental Protection.

Lisa holds a master's degree in Chemical Engineering from Princeton University and a bachelor's degree in Chemical Engineering from Tulane University. She serves on the boards of Princeton, Tulane, and the Clinton Foundation.